

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An optical scanning device comprising:

a light source emitting a light beam;

a scanning optical unit deflecting the light beam from the light source and focusing the deflected light beam to form a light spot on a scanned surface, the scanned surface being scanned by the light beam from the scanning optical unit;

a temperature detection unit detecting a temperature of the scanning optical unit and its neighboring locations; and

a temperature compensation unit adjusting a focal-point position of the light beam on the scanned surface in accordance with a change in the temperature detected by the temperature detection unit, the temperature compensation unit adjusting the focal-point position of the light beam by directly varying a focusing effect of a corrector lens on the light beam from the light source by a controlled amount of movement of the corrector lens along its optical axis that corresponds to the temperature change,

wherein the scanning optical unit comprises a coupling lens coupling the light beam from the light source, and the corrector lens of the temperature compensation unit providing a refraction power to the coupled light beam ~~from the coupling lens with respect to at least in~~ one of a main scanning direction <sup>or</sup> ~~and~~ <sup>and</sup> a sub-scanning direction on the scanned surface independently.

Claim 2 (Original): The optical scanning device according to claim 1, wherein the temperature compensation unit adjusts the focal-point position of the light beam with respect to at least one of a main scanning direction and a sub-scanning direction in accordance with the temperature change.

Claim 3 (Currently Amended): An optical scanning device comprising:

a light source emitting a light beam;

a scanning optical unit deflecting the light beam from the light source and focusing the deflected light beam to form a light spot on a scanned surface, the scanned surface being scanned by the light beam from the scanning optical unit;

a temperature detection unit detecting a temperature of the scanning optical unit and its neighboring locations; and

C, a temperature compensation unit adjusting a focal-point position of the light beam on the scanned surface in accordance with a change in the temperature detected by the temperature detection unit, the temperature compensation unit adjusting the focal-point position of the light beam by directly varying a focusing effect of a corrector lens on the light beam from the light source by a controlled amount of movement of the corrector lens along its optical axis that corresponds to the temperature change,

wherein the temperature compensation unit includes a memory that stores a table defining a relationship between the temperature change and a corresponding focal-point deviation of the light beam on the scanned surface, the temperature compensation unit adjusting the focal-point position of the light beam based on the focal-point deviation read from the memory in response to the temperature change, and

wherein the scanning optical unit comprises a coupling lens coupling the light beam from the light source, and the corrector lens of the temperature compensation unit providing a refraction power to the coupled light beam ~~from the coupling lens with respect to at least in~~ <sup>and</sup> one of a main scanning direction ~~or~~ <sup>and</sup> a sub-scanning direction on the scanned surface independently.

Claim 4 (Currently Amended): An optical scanning device comprising:

a light source emitting a light beam;

a scanning optical unit deflecting the light beam from the light source and focusing the deflected light beam to form a light spot on a scanned surface, the scanned surface being scanned by the light beam from the scanning optical unit;

a temperature detection unit detecting a temperature of the scanning optical unit and its neighboring locations; and

a temperature compensation unit adjusting a focal-point position of the light beam on the scanned surface in accordance with a change in the temperature detected by the temperature detection unit, the temperature compensation unit adjusting the focal-point position of the light beam by directly varying a focusing effect of a corrector lens on the light beam from the light source by a controlled amount of movement of the corrector lens along its optical axis that corresponds to the temperature change,

C1 wherein an integrated circuit board having a function that is different from a temperature compensation function is provided, the temperature detection unit being integrally formed on the integrated circuit board, and

wherein the scanning optical unit comprises a coupling lens coupling the light beam from the light source, and the corrector lens of the temperature compensation unit providing a refraction power to the coupled light beam ~~from the coupling lens with respect to at least in~~ <sup>and</sup> one of a main scanning direction ~~or~~ and a sub-scanning direction on the scanned surface independently.

Claim 5 (Currently Amended): An optical scanning method comprising the steps of:  
emitting a light beam from a light source;  
deflecting the light beam from the light source by a scanning optical unit;

focusing the deflected light beam by the scanning optical unit to form a light spot on a scanned surface, the scanned surface being scanned by the light beam from the scanning optical unit;

detecting a temperature of the scanning optical unit and its neighboring locations; and  
adjusting a focal-point position of the light beam on the scanned surface in accordance with a change in the temperature detected in the detecting step, the focal-point position of the light beam being adjusted by directly varying a focusing effect of a corrector lens on the light beam from the light source by a controlled amount of movement of the corrector lens along its optical axis that corresponds to the temperature change,

wherein the scanning optical unit comprises a coupling lens coupling the light beam from the light source, and the corrector lens providing a refraction power to the coupled light beam ~~from the coupling lens with respect to at least~~ <sup>and</sup> in one of a main scanning direction or ~~and a sub-scanning direction~~ on the scanned surface independently.

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Claim 6 (Currently Amended): An image forming apparatus in which an optical scanning device is provided, the optical scanning device comprising:

a light source emitting a light beam;

a scanning optical unit deflecting the light beam from the light source and focusing the deflected light beam to form a light spot on a scanned surface, the scanned surface being scanned by the light beam from the scanning optical unit;

a temperature detection unit detecting a temperature of the scanning optical unit and its neighboring locations; and

a temperature compensation unit adjusting a focal-point position of the light beam on the scanned surface in accordance with a change in the temperature detected by the temperature detection unit, the temperature compensation unit adjusting the focal-point

position of the light beam by directly varying a focusing effect of a corrector lens on the light beam from the light source by a controlled amount of movement of the corrector lens along its optical axis that corresponds to the temperature change,

wherein the scanning optical unit comprises a coupling lens coupling the light beam from the light source, and the corrector lens of the temperature compensation unit providing a refraction power to the coupled light beam ~~from the coupling lens with respect to at least in~~ <sup>and</sup> one of a main scanning direction ~~or~~ and a sub-scanning direction on the scanned surface independently.

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Claims 7-12 (Canceled)